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Objectives: Review impact of reentry devices (RED) on subintimal angioplasty (SIA) of iliac artery chronic total occlusion (CTO).

Methods: We completed a retrospective review of iliac artery CTO treated with SIA from 2003 to 2012.

Results: From 1100 iliac interventions, 214 SIA of iliac CTOs were identified: 72 in the RED group, 36 IVUS directed RED group. The mean age was 63 years, males 59%, TASC B 27%, C 36% and D 37%. IVUS directed RED had a larger proportion of TASC D lesions compared to the non-RED group (58% vs 36%; P = .01). Indications included claudication (66%) and CLI (34%). Clinical profile and indications were not different between groups.

Technical success was 92%, with a trend towards higher technical success with a RED vs non-RED (96% vs 90%; P = .1).

The overall incidence of retrograde aortoiliac dissections that required treatment was 13% and compared to the non-RED group, the IVUS directed RED group had a lower incidence (3% vs 14%; P = .06).

The overall incidence of retrograde aortic dissections that required treatment was 8% and compared to the non-RED group, the non-IVUS-directed RED group had a higher incidence (17% vs 6%; P = .04).

Retroperitoneal hematoma from unrecognized iliac injury occurred in 5 cases (2.5%). Compared to the one case in the non-RED group, there was one case in the IVUS-directed RED group (3% vs 1%; P = .4), and three cases in the non-IVUS-directed RED (8% vs 1%; P = .03).

Primary patency for the RED group vs the non-RED group at 1 and 3 years was 87% and 75% vs 73% and 59% respectively, with the use of a RED having a positive effect on primary patency based on multivariate analysis (HR, 0.4; P = .03). Secondary patency for the RED group vs the non-RED group at 3 years was 87% vs 79 % and was not statistically different (P = .8).

Conclusions: Reentry devices can improve technical success and primary patency of SIA recanalization of iliac artery CTO. IVUS directed reentry may further enhance the safety of the procedure.

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SS28.

Health Care Associated Infections After Lower Extremity Revascularization

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Objectives: To elucidate the incidence of health care associated infections and related risk factors in elective lower extremity vascular interventions.

Methods: A retrospective nationwide survey of all postoperative infections among patients who have undergone elective open and endovascular surgery for lower extremity arterial disease between 2005 and 2010 (n = 10547). Data were retrieved from the National vascular surgery registry and cross-matched with the National patient and cause of death registries.

Results: Patients (claudication 27%; critical limb ischemia (CLI) 17% and gangrene 56%) were treated with endovascular intervention (n = 6262; 59%), thrombendarterectomy (TEA) (n = 1061; 10%), or bypass surgery (n = 3224; 31%). The total incidence of postoperative infection (<30-d) was 9.7%. Skin and soft tissue infection (n = 735; 6.9%), including surgical site infection and graft infection dominated. This was followed by urinary tract infection (n = 168; 1.6%), pneumonia (n = 114; 1.1%) and sepsis (n = 91; 0.9%). Infection was significantly associated with both operative method and indication for treatment (TEA vs Endo in claudicants [OR 6.7 (95% CI 3.9-11.6]) and CLI [OR 2.0 (95% CI 1.1-3.7)]; Bypass vs Endo in claudicants [OR 8.4 (95% CI 5.0-14)] and CLI [OR 3.4 (95% CI 2.3-5.1)]. Risk factors associated with infection were diabetes, renal insufficiency, heart and lung disease (P < .05). There was a significant increase in the 1-year amputation rate (11.8% vs 5.6%) and 30-day mortality (4.2% vs 2.5%) for patients with postoperative infection within 30 days (P < .001).

Conclusions: The risk of infection varies depending on method of treatment and the extent of comorbidities. Open surgery in claudicants confers a 7-fold increased risk compared to endovascular treatment. Early postoperative infection is significantly associated with an increased rate of amputation and mortality.

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C6a: Poster Session-Aortic Disease (1)

PS2.

Outcomes of Open Surgical Repair for Chronic Type B Aortic Dissections

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Objectives: Open surgical repair (OSR) for chronic Type B aortic dissections (CTBAD) has an associated morbidity and mortality. The role of thoracic endovascular aneurysm repair (TEVAR) in CTBAD has not been determined. We analyzed our contemporary experience of CTBAD undergoing OSR to identify high-risk patients that may be considered for TEVAR.

Methods: From 1999-2010, 221 patients had repair of descending thoracic and thoracoabdominal aortic